

NOTES ON THE HOST RELATION OF SOME AUSTRALIAN ICHNEUMONIDAE, WITH A DESCRIPTION OF A NEW SPECIES.

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Through the kindness of Mr. F. Erasmus Wilson, Melbourne, a small but interesting collection of bred Ichneumonidae was received, and the result of an examination of this material has revealed a new species of *Campoplegid* and unrecorded hosts of several previously described species.

Family ICHNEUMONIDAE.

Subfamily OPHIONINAE.

Tribe CAMPOPLEGINI.

CAMPOPLEGIDEA WILSONI sp. nov.

Male. Length of head and thorax, 4 mm.; abdomen, 8.5 mm.; forewing, 8.5 mm.; and antennae, 10 mm.

Colour. Head, thorax, antennae, mandibles, tegulae, propodeum and all coxae entirely black; all trochanters brown, anterior and intermediate lightly infuscated; anterior legs yellowish brown, four basal joints of tarsus, lighter, almost yellow; intermediate legs with femora and apical tarsal joint brownish, the remaining joints yellowish; posterior legs entirely brown; abdomen brown, second tergite dorsally black, except apex, sixth and following segments laterally infuscated, with the parameres deeply infuscated; wings hyaline, iridescent, extreme base of costa yellow, costa blackish, stigma brown, except margins which are considerably darker, veins very dark brown.

Structure. Face and clypeus closely and distinctly punctured, finely rugosely so in places; malar space almost obsolete; mandibles wide, their width at base equals nearly three-quarters of their length, the upper tooth slightly longer than lower; front and vertex shagreen; ocelli moderately large; ocellocular space about half the distance between the posterior ocelli; occiput posteriorly subvertical; face and clypeus clothed with long silvery pubescence with shorter silvery pubescence on temples; antennae 56 segmented; prothorax shining and diagonally finely striated; mesopleurae, anteriorly and on lower half evenly but not closely punctured; subalar tubercle well developed, punctate-rugulose; from the subalar tubercle extending diagonally to a fovea situated close to the epimeron sulcus a little below the middle, is a depression transversely striated, with a small shining impunctate area immediately above the fovea adjacent to the epimeron sulcus; the epimeron sulcus strongly transversely carinate throughout its length; metapleurae very closely and rugosely punctate; posterior coxae sparsely and finely punctate; mesonotum very closely and finely punctate; notauli obsolete; tegulae with very minute and shallow punctures; scutellum broadly rounded posteriorly, convex with the posterior slope subequal to anterior slope, the whole finely and rugosely punctate with the lateral carinae present only along basal quarter; propodeum, gradually narrowing from base to apex with a well

defined longitudinal sulcus from base to apex, the segment not areolated, all carinae obsolete; spiracles linear about three and a half times as long as broad; the sides of the propodeum are vertical and the carina separating the propodeum from the metapleurae weak, the whole segment is finely transversely striolate; posterior femora sparsely and finely punctate; a little shorter in length than the tibiae; tibiae sparsely and weakly spined; posterior metatarsus as long as the three following joints combined, the apical joint only slightly longer than fourth; posterior tarsi claws small strongly bent at apical two to three from base and with distinct pectinations on basal half; abdomen with petiole slightly swollen in apical third; spiracles not prominent laterally, and separated from each other by a distance a little over one-third the distance from a spiracle to posterior border of the tergite; second tergite somewhat shorter than the first tergite, with the spiracles situated a little beyond the middle of the lateral border; gastercoeli well impressed and situated about the middle of the tergite along the lateral border; remaining tergites strongly compressed.

Wing venation. Nervulus strongly postfureal; second abscissa of discoides shorter than the third abscissa; the outer lower angle of the second discoidal cell slightly obtuse; areolet strongly petiolate, the length of the petiole about equals the height of the areolet which is large; second intercubitus slightly curved the recurrent vein straight; hindwing with six hamuli evenly spaced, all veins apically pellucid, indicated by folds in the wing; there is a stump of a vein at junction of abscissula and intercubitella; nervellus vertical very faintly angled well below its centre; discoidella entirely absent, indicated by a fold in the wing—

One male, holotype, Cumberland Falls, Victoria, Australia, 2nd January, 1954 (F. E. Wilson).

One male? (abdomen missing) paratype, Cumberland Falls, Victoria, Australia, 2nd January, 1954 (F. E. Wilson).

The holotype deposited in the National Museum, Melbourne, paratype in collection of Mr. F. E. Wilson.

This species is closely related to *Campoplex negatus* Turner (1919, p. 556), but differs in the more coarsely punctate face and mesonotum, the relatively longer antennae, which are definitely longer than the abdomen, the less well-marked notauli and the external areas on the propodeum not defined, the areolet strongly petiolate, the relatively shorter first tergite of the abdomen compared with the length of the second tergite and in the black mandibles, tegulae and anterior coxae which in *C. negatus* are yellow.

This species is named in honour of Mr. F. Erasmus Wilson, whose interest in Australian entomology is well-known and whose wide knowledge on Australian insects has been of the greatest assistance to the author.

NOTHANOMALON MERIDIONALIS Turner.

Turner (1919) originally described this species from Tasmania. It has not previously been recorded from the mainland, although it appears to be a fairly common species in Victoria, and South Australia. In the present specimens the face and clypeus appear to be more strongly punctured than is the case in the typical form, otherwise they agree well with Turner's excellent description.

One male and one female, Glen Wills, Victoria, 1951; ex pupae *Oreisplanus munionga* Olliff. (F. E. Wilson).

One male, Heywood, Victoria, Australia, 25th December, 1947; ex *Hesperilla chrysotricha cyclospila* Meyr and Lower (F. E. Wilson).

One female, Broadford, Victoria, Australia, 5th December, 1953; ex *Hesperilla donnyisa patmos* Wath. (F. E. Wilson).

One male, Toora, Victoria, Australia, 20th January, 1954; ex pupae *Hesperilla donnyisa patmos* Wath. (F. E. Wilson).

Hosts. The hosts recorded above for *N. meridionalis* Turner are *Oreisplanus munionga* Olliff., *Hesperilla chrysotricha cyclospila* Meyr and Lower, and *H. donnyisa patmos* Wath.

Subfamily CRYPTINAE.

POECILOCRYPTUS NIGROMACULATUS Cameron.

This species is mentioned here to record two females captured on Mt. Buangor Range, Victoria, on 16th January, 1954, by Mr. Wilson.

Subfamily ICHNEUMONINAE.

Tribe ICHNEUMONINI.

ICHNEUMON PROMISSORIUS Erichson.

Ichneumon promissorius Erichson, Arch. f. Naturg., vol. 8, p. 254, 1842.

Excephanes leucaniae Tryon, Queensland Journ. Agric., vol. 6, p. 35, 1900.

Probolus albocincta Cameron, Entomologist, vol. 39, p. 181, 1906.

Probolus varilineatus Cameron, Proc. Linn. Soc. N.S.W., vol. 37, p. 174, 1912.

Ichneumon (Euichneumon) promissorius Turner, Trans. Entom. Soc. London, for 1918, p. 344, 1918.

Ichneumon albocinctus Heinrich, Ann. Mag. Nat. Hist., ser. 10, vol. 20, p. 259, 1937.

Ichneumon promissorius Parrott, New Zealand Entomologist, vol. 1, no. 3, p. 16, 1953.

The nomenclature of this common Australian and New Zealand species has been discussed in a previous paper (Parrott, 1953, p. 16). The hosts of *I. promissorius* are usually Noctuid larvae, and it has been reared from a number of different species in Australia and New Zealand. Because of the wide distribution and abundance of this species throughout Australia, it must be considered a valuable agent in the natural control of army-worms and cut-worms.

One female, S.E. South Australia, 28th November, 1952, ex mass of pupae of *Sideridis ewingii* (*Wwd.) (N. B. Tindale).

Subfamily PIMPLINAE.

Tribe PIMPLINI.

ECHTHROMORPHA INTRICATORIA (Fabr.).

This conspicuous and common species is found throughout the greater part of Australia and New Zealand. The hosts of *E. intricatoria* in New Zealand have previously been recorded (Parrott, 1952). The following specimens have been bred by Mr. F. E. Wilson from Australian hosts.

One male, Bunbury, Western Australia, 9th November, 1945; bred from pupae of *Hesperilla chrysotricha chrysotricha* Meyr and Lower (F. E. Wilson).

**Sideridis ewingii* Wwd. is a well-known pest in Australia and New Zealand and for many years been placed in the genus *Persectania*.

- One male, Mt. Wellington, Tasmania, 3rd February, 1949; ex pupae of *Hesperilla donnysa aurantia* Waterhouse (F. E. Wilson).
- One male, Buronga, New South Wales, 17th August, 1950; ex pupae of *Ogyris olane ocela* Waterhouse (F. E. Wilson).
- One male, Mt. Compass, South Australia; ex *Hesperilla chrysotricha cyclospila* Waterhouse (F. E. Wilson).
- One female, Prince of Wales Bay, Tasmania; ex pupae *Hesperilla chrysotricha plebeia* Waterhouse (F. E. Wilson).

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ADDITIONAL REFERENCES.

- Parrott, A. W. (1952), "New Zealand Ichneumonidae—II. The Tribe Echthromorphini (Pimplinae)." Trans. Roy. Soc. New Zealand, vol. 80, part 2, pp. 155-170.
- Turner, R. A. (1919), "Notes on the Ichneumonidae in the British Museum—I." Ann. Mag. nat. Hist. (9) vol. 111, pp. 550-558.